SIEMENS

syngo Imaging XS VA60A

HS

DICOM Conformance Statement

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Part I

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1 Introduction

1.1 Purpose

This DICOM Conformance Statement is written according to part PS 3.2 of [1].

This DICOM Conformance Statement describes the DICOM Interface of the SIEMENS implementation of a Medical Imaging Viewing Station (syngo Imaging XS) running Software Version VA60A.

1.2 Definitions, Acronyms and Abbreviations

ACR	**A**merican **C**ollege of **R**adiology
AE	DICOM **A**pplication **E**ntity
DBP	**D**ICOM **B**asic **P**rint User
DQRY	**D**ICOM **Q**ue**ry**
DQUS	**D**ICOM **Q**uery **Us**er
FSC	**F**ile **S**et **C**reator
FSR	**F**ile **S**et **R**eader
FSU	**F**ile **S**et **U**pdater
IOD	DICOM **I**nformation **O**bject **D**efinition
NEMA	**N**ational **E**lectrical **M**anufacturers **A**ssociation
NI	**N**etwork **I**nterface of the SIENET syngo Imaging XS
PDU	**P**rotocol **D**ata **U**nit
SC	**S**torage **C**ommitment
SCU	DICOM **S**ervice **C**lass **U**ser (client using this DICOM service)
SCP	DICOM **S**ervice **C**lass **P**rovider (server providing this service)
SOP	**S**ervice/**O**bject **P**air
UID	**U**nique **ID**entifier, string unique in the whole network

1.3 References

[1] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-15
[2] Leonardo syngo 2005A DICOM Conformance Statement R5.0
[3] Mitra Broker Conformance Statement for PACS Broker 1.5.2 Revision 4.7

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2 Implementation Model

Siemens syngo Imaging XS DICOM Interface is implemented to support DICOM Application Entities (AE) as SCP which receive associations from remote Application Entities.

Siemens syngo Imaging XS DICOM Interface originates associations for Storage of DICOM Composite Information Objects in Remote Application Entities.

Siemens syngo Imaging XS DICOM Interface is implemented to act as SCU/SCP for the Storage Commitment Push Model Service using the Storage Commitment Service Class.

Siemens syngo Imaging XS DICOM Interface originates associations for Query and Retrieve of DICOM Composite Information Objects stored in Remote Application Entities.

Siemens syngo Imaging XS DICOM Interface originates associations for Query of Worklists stored in remote Application Entities.

Siemens syngo Imaging XS DICOM Interface originates associations for Print using Normalized classes. These Normalized Service Classes can work on objects and can create, delete, update or take action upon these objects.

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2.1 Application Data Flow Diagram

The Network Interface (NI) handles the DICOM communication for SIENET syngo Imaging XS.

This Interface starts automatically and will be invoked automatically via the integrated SIENET syngo Imaging XS user-interface.

- A remote Application Entity (AE) initiates an association for the DICOM Storage Service Class to the AE of NI. Upon acceptance of the association by NI the remote AE transmits the DICOM Information Objects to the NI receiver. After an object is received, NI initiates the transfer of the DICOM objects to the syngo Imaging XS image database.
- A remote AE initiates an association for the DICOM Query/Retrieve Service Class to the AE of NI. Upon acceptance of the association by NI the remote AE transmits DICOM Query/Retrieve Requests to the NI query provider.
  - In case of a C-Find Request the NI query provider queries the database of syngo Imaging XS and generates a response for each match. The responses are sent back to the remote AE via DICOM query responses.
  - In case of a C-Move Request the NI query Provider queries the database of syngo Imaging XS and initiates a Storage request for each match. A final Retrieve Response is sent back to the remote AE.*
- NI initiates associations for DICOM Storage Service Class to remote AEs. For each job queued, a new association to the corresponding remote DICOM AE is initiated. The DICOM objects are sent by NI sender via that open association.
- For request for storage commitment, the NI acting as SC SCU initiates association with remote AE (SC SCP), then sends N-Action request message and closes the association after receiving the N-Action response from the SC SCP. The NI waits then for and accept the incoming association from the SC SCP. The SC SCU has to receive the N_Event_Report request message from the SC SCP and then has to send a N_Event_Report response back to the SC SCP after which the SC SCP closes the association.

- To provide storage commitment, the NI acting as SC SCP waits for new association to be opened by a remote AE acting as SC SCU. On receipt of a N-Action request message the NI sends a N-Action response message back to the SC SCU. After processing the commitment request (see note below), the NI notifies the commitment to the SC SCU by opening an association and sending a N_Event_Report request message to the SC SCU. Upon receiving the N_Event_Report response message from the SC SCU, the NI closes the association.

Note : The storage commitment(N_EVENT_REPORT) is provided only if the data is archived successfully to CD-R/DVD regardless whether the data was archived previously.

- NI initiates associations for DICOM Query / Retrieve Service Class to remote AEs.
- NI initiates associations for DICOM Basic Worklist Service Class to remote AEs.*
- NI initiates associations for Mitra Report Management Service to remote AEs.
- DBP initiates association for Siemens syngo Imaging XS DICOM Basic Print to remote AEs.*

* Query SCP, Worklist SCU, Print SCU and Media Storage are available only with some Licensed Applications.

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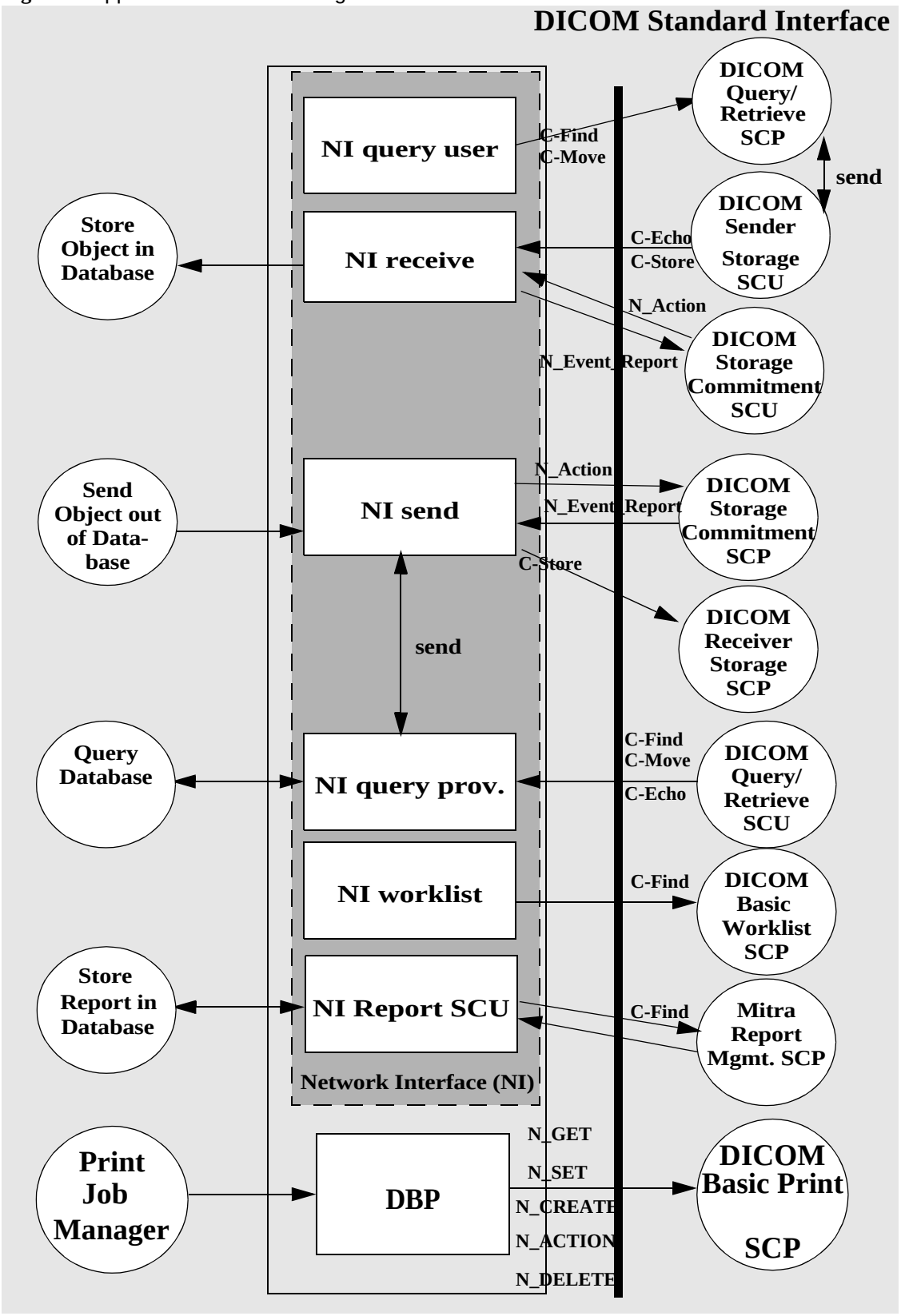
Figure 1: Application Data Flow Diagram



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2.2 Functional Definitions of Application Entities

The components NI send, NI receive and NI query provider are running in a background server process called as PcvNetService which starts automatically on OS startup. The NI query user are foreground operations which are invoked by the user.

NI receive acting as a SCP is waiting for association requests from a remote DICOM client. The Application Entity Title the SCP is listening on is taken from the local configuration. The Port Number is 104.

NI query provider acting as a SCP is waiting for association requests from a remote DICOM client. The Application Entity Title the SCP is listening on is taken from the local configuration. The Port Number is 104.

NI send acting as a SCU is waiting for requests from the Application. When a request is received, NI send initiates an association with a remote Application Entity.

NI query user acting as a SCU is waiting for requests from the User. When a request is started, NI query user initiates an association with a remote Application Entity.

NI worklist acting as a SCU is waiting for requests from the application. When a request is received, NI worklist initiates an association with a remote Application Entity.

NI Report Query acting as a SCU is waiting for requests from the application. When a request is received, NI Report Query initiates an association with a remote Application Entity acting as SCP for the Mitra Report Management service.

DBP acting as a SCU waits for print requests from the workstation's user. DBP initiates an association with a remote Application Entity and sends DICOM Basic Print Requests.

2.3 Sequencing of Real World Activities

not applicable.

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3 Application Entity Specifications

3.1 AE Specification

syngo Imaging XS VA60A Network Interface provides one configurable Application Entity.

Siemens syngo Imaging XS VA60A provides Standard Conformance to the following SOP Classes.

Table 1: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Verification Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Verification	1.2.840.10008.1.1	Yes[a]	Yes

a : The SCU for the Verification SOP Class is included in a Service Utility, part of the syngo Imaging XS VA60A software.

Table 2: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Storage Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	Yes	Yes
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Yes	Yes
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Yes	Yes
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Yes	Yes
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2	Yes	Yes
Enhance MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Yes	Yes
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	Yes	Yes
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	Yes	Yes
Harcopy Color Image Storage	1.2.840.10008.5.1.1.30	Yes	Yes
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	Yes	Yes
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	Yes	Yes
Digital Intra-oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	Yes	Yes
Digital Mammography Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	Yes	Yes
Digital Mammography Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	Yes	Yes
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	Yes	Yes
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	Yes	Yes
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	Yes	Yes
Stored Print Storage	1.2.840.10008.5.1.1.27	Yes	Yes
RT Structure Set Storage[a]	1.2.840.10008.5.1.4.1.1.481.3	Yes	Yes
RT Dose Storage[a]	1.2.840.10008.5.1.4.1.1.481.2	Yes	Yes

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Table 2: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Storage Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
RT Plan Storage[a]	1.2.840.10008.5.1.4.1.1.481.5	Yes	Yes
RT Beams Treatment Record Storage[a]	1.2.840.10008.5.1.4.1.1.481.4	Yes	Yes
RT Brachy Treatment Record Storage[a]	1.2.840.10008.5.1.4.1.1.481.6	Yes	Yes
RT Treatment Summary Record Storage[a]	1.2.840.10008.5.1.4.1.1.481.7	Yes	Yes
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	Yes	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	Yes
Mulfi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Yes	Yes
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	Yes	Yes
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	Yes	Yes
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	Yes	Yes
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Yes	Yes
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	Yes	Yes
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Yes	Yes
Ultrasound Multi-Frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	Yes	Yes
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Yes	Yes
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	Yes	Yes
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	Yes	Yes
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	Yes	Yes
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Yes	Yes
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Yes	Yes
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	Yes	Yes
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11	Yes	Yes
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Yes	Yes
Enhanced SR	1.2.840.10008.5.1.4.1.1.88.22	Yes	Yes
Chest CAD SR Storage	1.2.840.10008.5.1.4.1.1.88.65	Yes	Yes
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Yes	Yes
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Yes	Yes
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	Yes	Yes
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.1	Yes	Yes
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4.1	Yes	Yes

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Table 2: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Storage Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	Yes	Yes
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	Yes	Yes
Stereometric Relationship Storage	1.2.840.10008.5.1.4.1.1.77.1.5.3	Yes	Yes
Procedure Log	1.2.840.10008.5.1.4.1.1.88.40	Yes	Yes
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Yes	Yes
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	Yes	Yes
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	Yes	Yes
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	Yes	Yes
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	Yes	Yes
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	Yes	Yes
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	Yes	Yes
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	Yes	Yes
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	Yes	Yes

a : The storage for instances of these SOP Classes requires an additional license.

Table 3: *Private SOP Classes supported by syngo Imaging XS VA60A for the Storage Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Siemens Private CSA NonImage Storage	1.3.12.2.1107.5.9.1	Yes	Yes

Table 4: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Storage Commitment Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	Yes

Table 5: *Extended SOP Classes supported by syngo Imaging XS VA60A for the Query/Retrieve Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Patient Root Query/Retrieve Information Model - FIND (extended)	1.2.840.10008.5.1.4.1.2.1.1	Yes	Yes
Patient Root Query/Retrieve Information Model - MOVE (extended)	1.2.840.10008.5.1.4.1.2.1.2	Yes	Yes
Patient/Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	Yes	Yes
Patient/Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	Yes	Yes

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SOP Class Name	SOP Class UID	SCU	SCP
Study Root Query/Retrieve Information Model - FIND (extended)	1.2.840.10008.5.1.4.1.2.2.1	Yes	Yes
Study Root Query/Retrieve Information Model - MOVE (extended)	1.2.840.10008.5.1.4.1.2.2.2	Yes	Yes

Table 6: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Print Management Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Yes	No
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	Yes	No
Print Job	1.2.840.10008.5.1.1.14	Yes	No

Table 7: *Standard SOP Classes supported by syngo Imaging XS VA60A for the Basic Worklist Mgmt. Service Class*

SOP Class Name	SOP Class UID	SCU	SCP
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	Yes	No

Table 8: *Private SOP Classes supported by syngo Imaging XS VA60A for Mitra Report Management service*

SOP Class Name	SOP Class UID	SCU	SCP
Mitra Report Information Model - FIND	1.2.840.113532.3500.8	Yes	No

3.1.1 Association Establishment Policies

3.1.1.1 General

syngo Imaging XS VA60A always proposes the DICOM 3.0 standard application context name of:

- 1.2.840.10008.3.1.1.1

The configuration of the Siemens syngo Imaging XS VA60A defines the Application Entity Title, the port numbers and the host name and net address.

3.1.1.2 Number of Associations

NI Storage SCU(send) initiates only one association at a time.

NI Storage SCP(receive) accepts multiple associations from different remote DICOM AEs at a time. There may be several concurrent associations active and processed in parallel. The maximum of open associations are 10.

NI Query SCU initiates up to 20 associations at a time for C-Find.

NI Retrieve SCU and may initiate up to 10 associations at a time for C-Move.

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NI Query/Retrieve Provider accepts multiple associations from different remote DICOM AEs at a time for C-FIND and C-MOVE from remote destinations. There may be several concurrent associations active and processed in parallel. The maximum of open associations are 10.

NI worklist initiates only one association at a time.

NI Report SCU initiates only one association at a time.

DBP initiates one association at a time for DICOM Basic Print. Each Print job in the queue opens a fresh assocation and the association is closed after the job is done.

3.1.1.3 Asynchronous Nature

This version of the software does not support asynchronous communication (multiple outstanding transactions over a single association).

3.1.1.4 Implementation Identifying Information

The Siemens syngo Imaging XS provides an Implementation Class UID of

o "1.3.12.2.1107.5.8.2"

and an Implementation Version Name of

o "SHS_MV300_VA60A".

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3.1.2 Association Initiation Policy

The Siemens syngo Imaging XS attempts to initiate a new association for

- o DIMSE-C-STORE
- o DIMSE-C-FIND
- o DIMSE-C-MOVE
- o DIMSE-N-ACTION
- o DIMSE-N-EVENT-REPORT
- o DIMSE-N-CREATE
- o DIMSE-N-GET
- o DIMSE-N-SET

service operations.

3.1.2.1 Real-World Activity - Verification SCU (C-ECHO request)

3.1.2.1.1 Associated Real-World Activity

The associated Real-World activity is a C-ECHO request. This function is contained in a service utility, which is part of the software delivered with syngo Imaging XS VA60A. If the process successfully establishes an association to a remote Application Entity, it will send the C-ECHO-Request via the open association to verify that the remote Application Entity is responding to DICOM messages.

3.1.2.1.2 Proposed Presentation Contexts

The Siemens DICOM application will propose Presentation Contexts as shown in the following table:

Table 9: *Verification SCU Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Explicit VR Little Endian	1.2.840.10008.1.2.1		

3.1.2.1.3 SOP Specific Conformance Statement - Verification SCU

The Application conforms to the definition of a Verification SCU in accordance to the DICOM Standard.

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3.1.2.2 Real-World Activity - Send Image Objects to a Remote Node

3.1.2.2.1 Associated Real-World Activity - Send Image Objects to a Remote Node

The associated Real-World activity is a C-Store request initiated by the user of the Viewing station or an internal trigger from processing of a retrieve request. If NI send successfully establishes an association to a remote Application Entity, it transfers each image of the study or series one after another via the open association. If the C-Store Response from the remote Application contains a status other than Success, the association is aborted. After a configurable time period, the transfer of the folder is started again. If the Retry fails several times, the foldername will be logged on a history queue with status Failed.

The DICOM targets are configured at configuration time.

3.1.2.2.2 Proposed Presentation Contexts

The Siemens syngo Imaging XS will propose Presentation Contexts as shown in the following tables.

Table 10: *STORE SCU Proposed Presentation Contexts of syngo Imaging XS VA60A*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
CR Image Storage	1.2.840.10008.5.1.4.1.1.**1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.**2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
MR Image Storage	1.2.840.10008.5**.**1.4.1.1.**4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Digital Intra-Oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital Intra-Oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital Mammpgraphy X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital Mammpgraphy X-Ray Image Storage - For Processing	1.2.840.100008.5.1.4.1.1.**1.2.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.**20**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.**5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Positron Emission Tomography Image Storage	1.2.840.10008.5**.**1.4.1.1.**128**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Stored Print Storage	1.2.840.10008.5.1.1.**27**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Radio Therapy Structure Set Storage[d]	1.2.840.10008.5.1.4.1.1.**481.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Dose Storage[d]	1.2.840.10008.5.1.4.1.1.**481.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Plan Storage[d]	1.2.840.10008.5.1.4.1.1.**481.5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Beams Treatment Record Storage[d]	1.2.840.10008.5.1.4.1.1.**481.4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Brachy Treatment Record Storage[d]	1.2.840.10008.5.1.4.1.1.**481.6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Treatment Summary Record Storage[d]	1.2.840.10008.5.1.4.1.1.**481.7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Image Storage	1.2.840.10008.5.1.4.1.1.**481.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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SC Image Storage	1.2.840.10008.5**.** 1.4.1.1.**7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.**6.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.**6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.**3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Ultrasound Multi-frame Image Storage (Retired)	1.2.840.10008.5**.** 1.4.1.1.**3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
VL Endoscopic Image Storage	1.2.840.10008.5.1. 4.1.1.77.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
VL Microscopic Image Storage	1.2.840.10008.5.1. 4.1.1.77.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1. 4.1.1.77.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
X-Ray Angiographic Image Storage	1.2.840.10008.5 1.4.1.1.**12.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5 1.4.1.1.**12.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Basic Text SR	1.2.840.10008.5**.** 1.4.1.1.**88.11**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Enhanced Text SR	1.2.840.10008.5**.** 1.4.1.1.**88.22**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

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Comprehensive SR	1.2.840.10008.5**.**1.4.1.1.**88.33**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Mammography CAD SR	1.2.840.10008.5**.**1.4.1.1.**88.50**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Chest CAD SR	1.2.840.10008.5.1.4.1.1.88.65	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5**.**1.4.1.1.**11.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Key Object Selection	1.2.840.10008.5**.**1.4.1.1.**88.59**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

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Stereometric Relationship Storage	1.2.840.10008.5.1.4.1.1.77.1.5.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Procedure Log	1.2.840.10008.5.1.4.1.1.88.40	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

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Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Basic Voice Audio Waveform	1.2.840.10008.5.1.4.1.1.9.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

a. If Lossy is selected in the Send dialog for 8 bit images

b. If Lossy is selected in the Send dialog for 12 bit images.

c. If Lossless is selected in the Send dialog

d. Storage of RT objects requires a special license.

Table 11: *STORE SCU : Proposed Presentation Contexts for Siemens Private CSA NonImage Storage*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Siemens Private CSA NonImage Storage	1.3.12.2.1107.5.9.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

If the JPEGCompression license is available and if "Send As Is" is selected in the Send dialog, then the order of transfer syntaxes proposed depends on the transfer syntax of the images when they were received.

If "Send Uncompressed" is selected in the Send dialog, then the default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

3.1.2.2.3 SOP Specific Conformance Statement

The DICOM images sent by the Siemens syngo Imaging XS conform to the DICOM IOD definitions (Standard extended IODs).

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3.1.2.3 Real-World Activity - Query the Image Database of a Remote Node

3.1.2.3.1 Associated Real-World Activity - Query the Image Database of a Remote Node

The associated Real-World activity is a C-Find request initiated by the user of the Viewing station.The user specifies some attributes, the remote Application should use to query the database. If NI query user successfully establishes an association to the remote Application Entity, it will send C-Find requests (according to the query model) and will then return the results to the syngo Imaging XS VA60A application.

3.1.2.3.2 Proposed Presentation Contexts

The Siemens syngo Imaging XS will propose Presentation Contexts as shown in the following tables.

Table 12: *Query SCU Presentation Contexts of syngo Imaging XS*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - FIND (extended)	1.2.840.10008.5.1.4.1.2.1.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes
Patient Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes
Study Root Query/ Retrieve Information Model - FIND (extended)	1.2.840.10008.5.1.4.1.2.2.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax. The default SOP Class UID is Patient Root Query/Retrieve Information Model.

3.1.2.3.3 SOP Specific Conformance Statement

NI Query User proposes Extended Negotiation for all the Query SOP classes.

If the Query SCP rejects the extended negotiation, NI Query User provides Standard Extended Conformance to tthe Query SOP classes and uses hierarchical queries with Query/Retrieve Level Patient or Study or Series. NI Query User does not support image level queries i.e. with Query/Retrieve Level of image.

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If the Query SCP accepts the extended negotiation, NI Query User performs relation queries to the Query SCP. Relational queries are also supported only till the series level attributes.Image level is not supported.

NI query user checks for the following status codes in the Query/Retrieve provider's response to the C-Find request:

- o SUCCESS (0000): Matching is complete
- o PENDING (FF00): Matches are continuing
- o PENDING (FF01): Matches are continuing, no optional key support
- o REFUSED (A700): Out of Resources
- o CANCEL (FE00)

NI query user queries the following attributes:

Table 13: *Supported attributes at Patient Level*

Description	Tag
Patient's Name	(0010,0010)
Patient ID	(0010,0020)
Patient's Birth Date	(0010,0030)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

Table 14: *Supported attributes at Study Level*

Description	Tag
Study Date	(0008,0020)
Study ID	(0020,0010)
Study Time	(0008,0030)
Accession Number	(0008,0050)
Referring Physician's Name	(0008,0090)
Name of Physician Reading Study	(0008,1060)
Study Description	(0008,1030)
Body Part Examined	(0018,0015)
Study Instance UID	(0020,000D)
Number of Study Related Images	(0020,1208)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

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Table 15: *Supported Attributes at Series level:*

Description	Tag
Modality	(0008,0060)
Series Description	(0008,103E)
Series Instance UID	(0020,000E)
Series Number	(0020,0011)
Requested Procedure ID	(0040,1001)
Body Part Examined	(0018,0015)
Number of Series Related Images	(0020,1209)
Instance Availability	(0008,0056)
Exam Status	(0095,"SIENET",0004)
Rebuild Status	(0095,"SIENET",000C)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

The Tag Instance Availability (0008,0056) is used to display Folder Status: “ONLINE”, “NEARLINE” and “OFFLINE”.The Tag (0018,0015) is used to display Organ Names.

The Maximum of Query Responses is configured to 20 entries, to limit the Query Time. A message gives information, that more entries are available, but not displayed because of the Query criteria.
The Maximum value can be changed by Configuration up to 99.

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3.1.2.4 Real-World Activity - Retrieve Image Objects from a Remote Node

3.1.2.4.1 Associated Real-World Activity - Retrieve Image Objects from a Remote Node

The associated Real-World activity is a C-Move request initiated by the user of the Viewing Station.The user selects one study from a list generated as a result of the previous C-Find operation. If NI query user successfully establishes an association to the remote Application Entity, it will cause the calling application via a C-Move request to transfer the images to the local Application Entity. The transfer of the images will be done by a subsequent C-Store and will return the results of the store operation to the calling application.

3.1.2.4.2 Proposed Presentation Contexts

The Siemens syngo Imaging XS will propose Presentation Contexts as shown in the following tables.

Table 16: *C-Move SCU Presentation Contexts of syngo Imaging XS*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Patient Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Study Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

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3.1.2.4.3 SOP Specific Conformance Statement

syngo Imaging XS VA60A Retrieve SCU does not support retrieving at the image level.

syngo Imaging XS VA60A Retrieve SCU checks for the following status codes in the provider's response to a C-Move request:

- SUCCESS (0000): Matching is complete
- WARNING (B000): One or more Failures occured
- PENDING (FF00): Matches are continuing
- CANCEL (FE00)

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3.1.2.5 Real-World Activity - Query Worklist of a Remote Node

3.1.2.5.1 Associated Real-World Activity - Query Worklist of a Remote Node

The associated Real-World acitvity is a C-Find request initiated by the user of the Viewing Station. The user specifies some attributes the remote Application should use to query its worklist database. If NI worklist successfully establishes an association to the remote Application Entity, it will send the C-Find request and will then return the results to the application of the syngo Imaging XS.

3.1.2.5.2 Proposed Presentation Contexts

The Siemens syngo Imaging XS will propose Presentation Contexts as shown in the following table.

Table 17: *Basic Worklist SCU Presentation Contexts of syngo Imaging XS*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None
		DICOM Explicit VR Big Endian Transfer Syntax,	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

3.1.2.5.3 SOP Specific Conformance Statement

The following DICOM Tags are sent to the Worklist Provider by the syngo Imaging XS:

R = Required, O = Optional

Table 18: *Supported search key attributes*

Description	Tag	Type
Accession Number	(0008,0050)	O
Modality	(0008,0060)	R
Referring Physician's Name	(0008,0090)	R
Patient’s Name	(0010,0010)	R
Patient’s Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	R

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Description	Tag	Type
Patient's Sex	(0010,0040)	O
Study Instance UID	(0020,000D)	O
Scheduled Station AE Title	(0040,0001)	R
Scheduled Procedure Step Start Date	(0040,0002)	R
Scheduled Procedure Step Start Time	(0040,0003)	R
Scheduled Performing Physician's Name	(0040,0006)	R
Scheduled Procedure Step ID	(0040,0009)	O
Scheduled Procedure Step Sequence	(0040,0100)	R
Requested Procedure ID	(0040,1001)	O
RequestedProcedure Code Sequence	(0032,1064)	O
> Code Value	(0008,0010)	O
> Coding Scheme Designator	(0008,0102)	O
> Code Meaning	(0008,0104)	O
Requested Procedure Priority	(0040,1003)	O
Issuer of Patient ID	(0010,0021)	O

The following attributes are passed to the worklist provider as part of a sequence: Scheduled Performing Physician's Name, Scheduled Station AE Title, Modality, Requested Procedure ID, Scheduled Procedure Step Start Date, Scheduled Procedure Step Start Time, Scheduled Procedure Step ID, Code Value, Coding Scheme Designator, Code Meaning.

The following DICOM Tags are read from the Worklist Provider's response message:

R = Required, O = Optional

Table 19: *Supported return key attributes*

Description	Tag	Type
Accession Number	(0008,0050)	O
Modality	(0008,0060)	R
Referring Physician's Name	(0008,0090)	R
Series Description	(0008,103E)	O
Study Description	(0008,1030)	O
Patient's Name	(0010,0010)	R
Patient's Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	R

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Description	Tag	Type
Patient's Sex	(0010,0040)	O
Study Instance UID	(0020,000D)	O
Series Instance UID	(0020,000E)	O
Study ID	(0020,0010)	O
Series Number	(0020,0011)	O
Study Comments	(0032,4000)	O
Scheduled Station AE Title	(0040,0001)	R
Scheduled Procedure Step Start Date	(0040,0002)	R
Scheduled Procedure Step Start Time	(0040,0003)	R
Scheduled Performing Physician's Name	(0040,0006)	R
Scheduled Procedure Step ID	(0040,0009)	O
Scheduled Procedure Step Sequence	(0040,0100)	R
Requested Procedure ID	(0040,1001)	O
RequestedProcedure Code Sequence	(0032,1064)	O
> Code Value	(0008,0010)	O
> Coding Scheme Designator	(0008,0102)	O
> Code Meaning	(0008,0104)	O
Requested Procedure Priority	(0040,1003)	O
Issuer of Patient ID	(0010,0021)	O

The following attributes are expected to be part of a sequence: Scheduled Performing Physician's Name, Scheduled Station AE Title, Modality, Scheduled Procedure Step Start Date, Scheduled Procedure Step Start Time, Scheduled Procedure Step ID, Study ID, Study Description, Code Value, Coding Scheme Designator, Code Meaning.

The syngo Imaging XS Basic Worklist SCU checks for the following status codes in the provider's response to the C-Find request:

- SUCCESS (0000): Matching is complete
- PENDING (FF00): Matches are continuing
- PENDING (FF01): Matches are continuing, no optional key support
- CANCEL (FE00)

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3.1.2.6 Real-World Activity - Send Print Request to a Remote Node

Associated Real-World Activity - Send Print Request to a Remote Node

The associated Real-World activity is a print request initiated by the user of the workstation.
If the DBP successfully establishes an association to the remote printer Application Entity, it will send N_GET, N_CREATE, N_SET, N_ACTION and N_DELETE requests to the remote printer.

DBP monitors the printer status by sending N_GET requests on the Printer SOP Class. The status of the print jobs are monitored by sending N_GET requests on the Print Job SOP Class.

DBP is able to send the appropriate data to both grayscale printers and color printers to print in true size. To have uniform support for true size printing, irrespective of the printer support for true size printing through the Requested Image Size (2020, 0030) attribute, DBP stores the printer pixel spacing in configuration files specific for each printer model. It then maps the image pixel spacing to that of the printer, scales the image to its true size, clips the image if necessary to fit to the film sheet and sends this data to the printer.

DBP will propose Presentation Contexts as shown in the following tables.

Table 20: *syngo Imaging XS Print Management SCU - Supported Presentation Contexts*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Basic Grayscale Print Management	1.2.840.10008.5.1.1.9	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None

DBP supports the following mandatory SOP Classes as defined by the Basic Grayscale Print Management Meta SOP Class. DBP does not support any optional SOP Classes for Basic Grayscale Print Management Meta SOP Class.

SOP Class Name	SOP Class UID
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2
Basic Grayscale Image Box SOP Class	1.2.840.10008.5.1.1.4
Printer SOP Class	1.2.840.10008.5.1.1.16

DBP supports the following mandatory SOP Classes as defined by the Basic Color Print Management Meta Class:

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SOP Class Name	SOP Class UID
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2
Basic Color Image Box SOP Class	1.2.840.10008.5.1.1.4.1
Printer SOP Class	1.2.840.10008.5.1.1.16

Basic Film Session SOP Class

The Basic Film Session information object definition describes all the user defined parameters which are common for all the films of a film session. The Basic Film Session refers to one or more Basic Film Boxes, that are printed on a hardcopy printer.

Table 21: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-CREATE	M/M
N-DELETE	U/M

Table 22: *Supported N_CREATE attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Number of Copies	2000,0010	U/M	>0
Print Priority	2000,0020	U/M	HIGH MED LOW
Medium Type	2000,0030	U/M	CLEAR FILM BLUE FILM
Film Destination	2000,0040	U/M	PROCESSOR
Film Session Label	2000,0050	U/M	

After use the Basic Film Session is closed with N_DELETE.

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Table 23: *Status handling*

Service Status	Meaning	Protocol Codes
Success	Film Session successfully created	0000
Warning	Memory allocation not supported	B600
Warning	Attribute Value Out of Range	0116
Warning	Film session printing (collation) is not supported	B601
Warning	Film session SOP Instance hierarchy does not contain Image Box SOP Instance (empty page)	B602
Warning	Image size is larger than image box size, the image has been demagnified.	B604
Failure	Missing attribute value	0121
Failure	Unable to create print job, print queue is full (Film Session)	C601
Failure	Image size is larger than image box size	C603
Failure	Insufficient memory in printer to store the image	C605
Failure	More than one VOI LUT Box contained in image	C606
Failure	No such argument	0114
Failure	Processing Failure	0110
Failure	Unrecognized Operation	0211

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Basic Film Box SOP Class

The Basic Film Box information object definition describes all the user defined parameters of one film of the film session. The Basic Film Box information description defines the presentation parameters which are common for all images on a given sheet of film.

Table 24: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-CREATE	M/M
N-ACTION	M/M

Table 25: *Mandatory Film Box N-Create attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Display Format	2010,0010	M/M	STANDARD\1,1 STANDARD\2,1 STANDARD\1,2 STANDARD\2,2 STANDARD\2,3 STANDARD\3,3 STANDARD\3,4 STANDARD\4,4 STANDARD\4,5 STANDARD\5,6 ROW\2,3,3,3 ROW\3,4,4,4,4
Referenced Film Session Sequence	2010,0500	M/M	
>Referenced SOP Class UID	0008,1150	M/M	
>Referenced SOP Instance UID	0008,1155	M/M	
Referenced Image Box Sequence	2010,0510	-/M	
>Referenced SOP Class UID	0008,1150	-/M	
>Referenced SOP Instance UID	0008,1155	-/M	
Film Orientation	2010,0040	M/M	PORTRAIT, LANDSCAPE

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Table 25: *Mandatory Film Box N-Create attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Film Size ID	2010,0050	M/M	8INX10IN 8_5INX11IN 10INX12IN 10INX14IN 11INX14IN 11INX17IN 14INX14IN 14INX17IN 24CMX24CM 24CMX30CM
Magnification Type	2010,0060	M/M	REPLICATE BILINEAR CUBIC NONE
Smoothing Type	2010,0080	M/M	Values are defined in Conformance Statement. Only valid for Magnification Type (2010,0060) = CUBIC
Border Density	2010,0100	M/M	BLACK WHITE
Empty Image Density	2010,0110	M/M	BLACK WHITE
Min Density	2010,0120	M/M	>=0
Max Density	2010,0130	M/M	>0
Trim	2010,0140	M/M	YES NO
Configuration Information	2010,0150	M/M	CS000-CS999

N_ACTION is used to start printing.

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Table 26: *Status handling*

Service Status	Meaning	Protocol Codes
Success	Film Box successfully created	0000
Warning	Requested Min Density or Max Density outside of printer's operating range. The printer will use its respective minimum or maximum density value instead.	B605
Warning	Film box does not contain image box (empty page) box (empty page)	B603
Warning	Image size is larger than image box size, the image has been demagnified.	B604
Failure	Invalid attribute value	0106
Failure	Unable to create print job SOP Instance, print queue is full (Film Box)	C602
Failure	Image size is larger than image box size	C603
Failure	Resource limitation	0213
Failed	Unrecognized Operation	0211

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Basic Grayscale Image Box SOP Class

The Basic Grayscale Image Box information object definition is the presentation of an image and image related data in the image area of a film. The Basic Image Box information description describes the presentation parameters and image pixel data which apply to a single image of a sheet of film.

Table 27: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-SET	M/M

Table 28: *Supported N_SET attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Position	2020,0010	M/M	Dependent on Display Format
Basic Grayscale Image Sequence	0020,0110	M/M	
>Sample Per Pixel	0028,0002	M/M	1
>Photometric Interpretation	0028,0004	M/M	MONOCHROME2
>Rows	0028,0010	M/M	Dependend on Printer and Format
>Columns	0028,0011	M/M	Dependend on Printer and Format
>Pixel Aspect Ratio	0028,0034	M/M	
>Bits Allocated	0028,0100	M/M	8
>Bits Stored	0028,0101	M/M	8
>High Bit	0028,0102	M/M	7
>Pixel Representation	0028,0103	M/M	0
>Pixel Data	7FE0,0010	M/M	

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Basic Color Image Box SOP Class

The Basic Color Image Box information object definition is the presentation of an image and image related data in the image area of a film. The Basic Image Box information description describes the presentation parameters and image pixel data which apply to a single image of a sheet of film.

Table 29: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-SET	M/M

Table 30: *Supported N_SET attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Position	2020,0010	M/M	Dependent on Display Format
Basic Color Image Sequence	0020,0111	M/M	
>Sample Per Pixel	0028,0002	M/M	1
>Photometric Interpretation	0028,0004	M/M	
>Planar Configuration	0028,0006	M/M	
>Rows	0028,0010	M/M	Dependend on Printer and Format
>Columns	0028,0011	M/M	Dependend on Printer and Format
>Pixel Aspect Ratio	0028,0034	M/M	
>Bits Allocated	0028,0100	M/M	8
>Bits Stored	0028,0101	M/M	8
>High Bit	0028,0102	M/M	7
>Pixel Representation	0028,0103	M/M	0
>Pixel Data	7FE0,0010	M/M	

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Printer SOP Class

The Printer SOP Class provides the possibility to monitor the status of the hardcopy printer in a synchronous way.

Table 31: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-GET	U/M

The syngo Imaging XS writes all warning and failure messages into a log file.

Table 32: *Mandatory Printer N-GET attributes.*

Attribute name	Tag	Usage SCU/SCP
Printer Status	2110,0010	U/M
Printer Status Info	2110,0020	U/M

SOP Specific Conformance Statement

Only one association will be processed at a time.

In case of a failure return status of the Print SCP, the current job will be suspended.

:

Table 33: *Default values for timing demands*

Definition	Registry Entry Default	Default Value
No. of retries on Print Error	PrintRetryNumber	5
Retry starts after a specified time interval	PrintRetryTimeDelay	180 sec.
Timeout on Printing	PrintReadMessageTimeout	300 sec.
Timeout of not closed association	AssocTimeout	10 Min.

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3.1.2.7 Real-World Activity - Storage Commitment SCU

3.1.2.7.1 Associated Real-World Activity

The syngo Imaging XS DICOM Application Entity acts as a Service Class User (SCU) for the Storage Commitment Push Model Service Class (i.e. it requests commitment for storage of instances previously sent).
To do so, the syngo Imaging XS will issue a

- N-ACTION DIMSE to request commitment or a
- N-EVENT-REPORT DIMSE to respond to a received storage commitment request.

If the configuration setting "Automatic request for Storage Commitment" is enabled and the send destination is also configured as a storage commitment SCP, then the syngo Imaging XS VA60A requests for a storage commitment of the instances which have been successfully sent.

As soon as a commitment is requested for a set of instances, the archived status of these instances in the local database will be set to "For Archival".
When the SC SCU receives the corresponding notification status (N-Event-Report), it updates the archived status of these instances to "Archived" in case of success and "Not Archived" in case of failure.
The syngo Imaging XS VA60A SC SCU waits for a configurable time for the commitment notification from the SC SCP. If the syngo Imaging XS VA60A does not receive any notification within this duration, it updates the archived status of the referenced instances to "Not Archived" which means that the commitment request failed. This timeout is termed as "Event Receipt Timeout" and the default value is 1 day.

3.1.2.7.2 Proposed Presentation Contexts

The syngo Imaging XS DICOM application will propose Presentation Contexts as shown in the following table:

Table 34: *SC SCU Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Storage Commitment Push Model	1.2.840.10008.1.20.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None
		DICOM Explicit VR Big Endian Transfer Syntax,	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.2.7.3 SOP Specific Conformance Statement

Storage Commitment is supported for all the SOP class UIDs as mentioned in tables 2 and 27. The Referenced Study Component Sequence is not supported.

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3.1.3 Association Acceptance Policy

The Siemens syngo Imaging XS accepts a new association for

- o DIMSE-C-Echo
- o DIMSE-C-Store
- o DIMSE-C-Find
- o DIMSE-C-Move
- o DIMSE-N-Action
- o DIMSE-N-Event-Report

service operation.

3.1.3.1 Real-World Activity - Receive Echo

3.1.3.1.1 Associated Real-World Activity - respond to echo request

The associated Real-World activity is a C-Echo response by NI receive and NI query provider.

3.1.3.1.2 Proposed Presentation Contexts

The Siemens syngo Imaging XS will accept Presentation Contexts as shown in the following table.

Table 35: *Echo SCP Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Verification Service Class	1.2.840.10008.1.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCP	None
		DICOM Explicit VR Big Endian Transfer Syntax	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.3.1.3 SOP Specific Conformance to the Verification SOP Class

The DICOM syngo Imaging XS provides standard conformance to the DICOM Verification Service Class.

3.1.3.2 Real-World Activity - Receive Image Objects from a Remote Node

3.1.3.2.1 Associated Real-World Activity -Receive Image Objects from a

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Remote Node

The associated Real-World activity is a C-Store request received by NI receive. After accepting an association from a remote DICOM AE, the NI receive thread receives the images via the open association.

Images are stored into the syngo Imaging XS VA60A database as soon as they are received. After an image is stored into the database, NI sends a successful C-Store response back to the sender. This process repeats until
- association is closed by the sender or
- image storage fails due to some reason (in this case the syngo Imaging XS VA60A sends a failure response and aborts the association or
- the association is lost (because of timeouts, network unexpectedly shutdown, ...).

3.1.3.2.2 Accepted Presentation Contexts

The Siemens syngo Imaging XS will accept Presentation Contexts as shown in the following tables.

Table 36: *STORE SCP Acceptable Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
CR Image Storage	1.2.840.10008.5.1.4.1.1.**1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.**2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
MR Image Storage	1.2.840.10008.5**.**1.4.1.1.**4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Digital Intra-Oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital Intra-Oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital Mammpgraphy X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital Mammpgraphy X-Ray Image Storage - For Processing	1.2.840.100008.5.1.4.1.1.**1.2.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.**20**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.**5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.**128**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Stored Print Storage	1.2.840.10008.5.1.1.**27**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Radio Therapy Structure Set Storage[a]	1.2.840.10008.5.1.4.1.1.**481.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

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Radio Therapy Dose Storage[a]	1.2.840.10008.5.1.4.1.1.**481.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Plan Storage[a]	1.2.840.10008.5.1.4.1.1.**481.5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Beams Treatment Record Storage[a]	1.2.840.10008.5.1.4.1.1.**481.4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Brachy Treatment Record Storage[a]	1.2.840.10008.5.1.4.1.1.**481.6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Treatment Summary Record Storage[a]	1.2.840.10008.5.1.4.1.1.**481.7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Image Storage	1.2.840.10008.5.1.4.1.1.**481.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
SC Image Storage	1.2.840.10008.5.1.4.1.1.**7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Ultrasound Image Storage	1.2.840.10008.5**.** 1.4.1.1.**6.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Image Storage (Retired)	1.2.840.10008.5**.** 1.4.1.1.**6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5**.** 1.4.1.1.**3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Multi-frame Image Storage (Retired)	1.2.840.10008.5**.** 1.4.1.1.**3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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X-Ray Angiographic Image Storage	1.2.840.10008.5 1.4.1.1.**12.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5 1.4.1.1.**12.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Basic Text SR	1.2.840.10008.5**.** 1.4.1.1.**88.11**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Enhanced Text SR	1.2.840.10008.5**.** 1.4.1.1.**88.22**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Comprehensive SR	1.2.840.10008.5**.** 1.4.1.1.**88.33**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Mammography CAD SR	1.2.840.10008.5**.**1. 4.1.1.**88.50**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Chest CAD SR	1.2.840.10008.5.1. 4.1.1.88.65	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

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Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.**11.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Key Object Selection	1.2.840.10008.5.1.4.1.1.**88.59**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

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Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Stereometric Relationship Storage	1.2.840.10008.5.1.4.1.1.77.1.5.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Procedure Log	1.2.840.10008.5.1.4.1.1.88.40	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

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12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Basic Voice Audio Waveform	1.2.840.10008.5.1.4.1.1.9.4.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

a : Storage of RT Objects requires the RadioTherapy license.

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Table 37: *STORE SCU : Proposed Presentation Contexts for Siemens Private CSA NonImage Storage*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Siemens Private CSA NonImage Storage	1.3.12.2.1107.5.9.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

3.1.3.2.3 SOP Specific Conformance Statement

n.a.

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3.1.3.3 Real World Activity - Receive Query Request from a Remote Node

3.1.3.3.1 Associated Real World Activity - Respond to Find Request

The associated Real-World activity is a C-Find request received by the NI query provider. After accepting an association from a remote DICOM AE the NI query provider receives the query requests via the open association and queries the database. For each match a result message is sent to the requesting remote node.

3.1.3.3.2 Accepted Presentation Contexts

The Siemens syngo Imaging XS will accept Presentation Contexts as shown in the following tables.

Table 38: *Query SCP Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes
Patient Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes
Study Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes

3.1.3.3.3 SOP Specific Conformance Statement

- Relational queries are supported.
  The fields supported for relational query are Study Date on Study Level and Modality, Body Part Examined, Series Description, Exam Status and Rebuild Status on Series Level.
- The query matching is case insensitive.

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- The DICOM syngo Imaging XS Query Provider returns one of the following status codes:
  - Success (0000): Matching is complete
  - Pending (FF00): Matches are continuing
  - Failed (A900): Invalid Parameters
  - Refused (A700): Out of Resources
  - Cancel (FE00)

3.1.3.3.3.1 Patient Root C-Find SOP Class Specific Conformance Statement

R = Required, U = Unique, O = Optional

Table 39: *Supported Patient Level Attributes*

Description	Tag	Type
Patient's Name	(0010,0010)	R
PatientID	(0010,0020)	U
Patient's Birth Date	(0010,0030)	O
Patient's Sex	(0010,0040)	O

Table 40: *Supported Study Level Attributes*

Description	Tag	Type
Study Date	(0008,0020)	R
Study Time	(0008,0030)	R
Accession Number	(0008,0050)	R
Referring Physician's Name	(0008,0090)	O
Study Description	(0008,1030)	O
Study ID	(0020,0010)	R
Study Instance UID	(0020,000D)	U
Number of Study related Images	(0020,1208)	O

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Table 41: *Supported Series Level Attributes*

Description	Tag	Type
Modality	(0008,0060)	R
Series Description	(0008,103E)	O
Body Part Examined	(0018,0015)	O
Series Instance UID	(0020,000E)	U
Series Number	(0020,0011)	R
Requested Procedure ID	(0040,1001)	O
Number of Series Related Images	(0020,1209)	O
Storage Media File Set ID	(0088,0130)	O

Table 42: *Supported Image Level Attributes.*

Description	Tag	Type
SOP Instance UID	(0008,0018)	R
Instance Number	(0020,0013)	R
SOP Class UID	(0008,0016)	O
Private Image Number	(0099,SIENET,05)	O

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3.1.3.3.3.2 Study Root C-Find SOP Class Specific Conformance Statement

Table 43: *Supported Study Level attributes*

Description	Tag	Type
Study Date	(0008,0020)	R
Study Time	(0008,0030)	R
Accession Number	(0008,0050)	R
Referring Physician's Name	(0008,0090)	O
Study Description	(0008,1030)	O
Patient’s Name	(0010,0010)	R
Patient’s Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	O
Patient’s Sex	(0010,0040)	O

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Description	Tag	Type
Study Instance UID	(0020,000D)	U
Study ID	(0020,0010)	R
Number of Study related Images	(0020,1208)	O

- The same Series level attributes as in the Patient Root C-Find SOP Class are supported.
- The same Image level attributes as in the Patient Root C-Find SOP Class are supported.

3.1.3.3.3.3 Patient/Study Only C-Find SOP Class Specific Conformance Statement

- The same Patient level attributes as in the Patient Root C-Find SOP Class are supported.
- The same Study level attributes as in the Patient Root C-Find SOP Class are supported.

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3.1.3.4 Real-World Activity - Receive Transfer Request from a Remote Node

3.1.3.4.1 Associated Real-World Activity - Initiate Image Transfer

The associated Real-World activity is a C-Move request received by the NI query provider. After accepting an association from a remote DICOM AE, the NI query provider receives the move request via the open association and queries the database. The requested images are sent to the requested remote node.

3.1.3.4.2 Accepted Presentation Contexts

The Siemens syngo Imaging XS will accept Presentation Contexts as shown in the following table.

Table 44: *Retrieve SCP Presentation Contexts of syngo Imaging XS VA60A*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Patient Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Study Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

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3.1.3.4.3 SOP Specific Conformance Statement

The NI query provider sends one of the following status codes to the Query/Retrieve SCU in response to a C-Move request:

- SUCCESS (0000): Matching is complete
- PENDING (FF00): Matches are continuing
- FAILED (A900): Invalid parameters
- FAILED (C001): Unable to process
- REFUSED (A801): Destination unknown
- CANCEL (FE00)

3.1.3.4.3.1 SOP Specific Conformance Statement for SOP Class C-Store

The NI query provider initiates C-Store sub-operations using the Presentation Contexts listed in section 3.1.2.2 on page 23

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3.1.3.5 Real-World Activity - Storage Commitment SCP

3.1.3.5.1 Associated Real-World Activity

The syngo Imaging XS DICOM Application Entity acts as a Service Class Provider (SCP) for the Storage Commitment Push Model Service Class (i.e. it gives commitment to store previously received instances).
To do so, the syngo Imaging XS attempts to accept a

- N-ACTION DIMSE to receive a commitment request for the instance included or a
- N-EVENT-REPORT DIMSE to receive a storage commitment response from a previous request.

On receiving a commitment request, the SC SCP waits for a configured time for the referenced SOP instances to be successfully burnt onto a CD/DVD. If this does not happen within the configured time, it sends N-EVENT-REPORT to the SC SCU with the Event Type ID set to 2 and the failure reason always set to "The operation timed out".
The timeout is called the "Media Burn Timeout" and the default value is 1 day.

3.1.3.5.2 Proposed Presentation Contexts

The syngo Imaging XS DICOM application will propose Presentation Contexts as shown in the following table:

Table 45: *SC SCU Presentation Contexts of* syngo Imaging XS

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Storage Commitment Push Model	1.2.840.10008.1.20.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCP	None
		DICOM Explicit VR Big Endian Transfer Syntax,	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.3.5.3 SOP Specific Conformance Statement

Storage Commitment is supported for all the SOP class UIDs as mentioned in Table 2: and Table 3:. The Referenced Study Component Sequence is not supported.

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3.1.4 Transfer Syntax Selection

The Siemens syngo Imaging XS currently supports the Implicit Little Endian, Explicit Big Endian, Explicit Little Endian, JPEG Baseline(Process 1) Lossy, JPEG Extended (Process 2 und 4) Lossy, and JPEG Lossless Transfersyntaxes (detailed description see presentation context tables).

For Storage Service Class Provider, the Siemens syngo Imaging XS has following syntax priority Order:

1) JPEG Extended (Process 2 und 4) Lossy

2) JPEG Lossless, Non-Hierarchical (Process 14)

3) JPEG Baseline (Process 1) Lossy

4) Implicit Little Endian

5) Explicit Little Endian

6) Explicit Big Endian

7) RLE

The transfer syntax priority order for the Query/Retrieve Provider is:

1) Implicit VR Little Endian

2) Explicit VR Little Endian

3) Explicit VR Big Endian.

On Verification SOP Class:

1) Implicit Little Endian

2) Explicit Big Endian

3) Explicit Little Endian.

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4 Communication Profiles

4.1 Supported Communication Stacks

Siemens syngo Imaging XS provides DICOM TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.1.1 TCP/IP Stack

Siemens syngo Imaging XS uses the TCP/IP stack from the Windows 2000/XP system upon which it executes.

4.1.1.1 Physical Media Support

Siemens syngo Imaging XS is independent of the physical medium over which TCP/IP executes.

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5 Extensions/Privatizations/Specializations

5.1 Standard Extended/ Specialized/Private SOPs

5.1.1 Mitra Report Management SOP Class

5.1.1.1 Real World Activity - Mitra Report Management

5.1.1.1.1 Associated Real World Activity - Mitra Report Management

The syngo Imaging XS can request reports via DICOM C-Find.

5.1.1.1.2 Presentation Context Table - Mitra Report Management

The syngo Imaging XS supports the presentation contexts listed in the following table
:

Table 46: *Presentation Contexts*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Mitra Report Info Model - FIND	1.2.840.113532.3500.8	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None

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5.1.1.1.3 SOP Specific Conformance - Mitra Report Management

The syngo Imaging XS provides conformance to a Mitra private SOP Class used to fetch report information.
The syngo Imaging XS supports the following elements for this SOP Class. The SCP is supposed to include all supported attributes in its response, independent of which attributes are included in the query.

The syngo Imaging XS is able to use the Requested Procedure ID as matching key even if the SCP only supports it as return key.

Table 47: *Mitra Report Information Model Attributes*

Message Field	Tag	Matching Key Type SCU
Accession Number	(0008, 0050)	Yes
Patient's Name	(0010, 0010)	Yes
Patient ID	(0010, 0020)	Yes
Patient's Birth Date	(0010, 0030)	Yes
Requested Procedure Description	(0032, 1060)	No
Requested Procedure Code Sequence	(0032, 1064)	No
>Code Value	(0008, 0100)	No
>Coding Scheme Designator	(0008, 0102)	No
>Code Meaning	(0008, 0104)	No
Requested Procedure ID	(0040, 1001)	Yes
Results ID Issuer	(4008, 0042)	No
Interpretation Approval Time	(4008, 0013)	No
Physicians Approving Interpretation	(4008, 0014)	No
Interpretation Recorded Date	(4008, 0100)	No
Interpretation Recorded Time	(4008, 0101)	No
Interpretation Recorder	(4008, 0102)	No
Interpretation Transcriber	(4008, 010A)	No
Interpretation Author	(4008, 010C)	No
Interpretation Approver Sequence	(4008, 0111)	No
>Interpretation Approval Date	(4008, 0112)	No
>Interpretation Approval Time	(4008, 0113)	No
>Physician Approving Interpretation	(4008, 0114)	No
Interpretation Diagnosis Description	(4008, 0115)	No
Interpretation ID	(4008, 0200)	No
Interpretation Status ID	(4008, 0212)	No

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5.2 Private Transfer Syntaxes

None.

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6 Configuration

6.1 AE Title / Presentation Address Mapping

The Siemens syngo Imaging XS maps Application Entity Titles to host name and port number via an internal configuration method. The IP address for the host name is determined using standard system calls.

For each DICOM syngo Imaging XS **default** unique Application Entity Titles are assigned using the following mechanism:

Each Application Entity Title starts with “MV300_” and has added the Serial Number, eg. “MV300_0032” for syngo Imaging XS.

The AE Titles can be changed with the configuration, the Port No. for the Storage SCP and the Query/ Retrieve SCP is 104.

6.2 Configurable Parameters

- The Application Entity Titles, host names and port numbers.
- PDU size is set to 16384
- time-out for accepting/rejecting an association request: 300 sec
- time-out for responding to an association open/close request: 300 sec
- time-out for accepting a message over the network: 300 sec
  - All this Timeout values can be changed via Configuration
- Number of max. accepted Query Matches
- automatic request for Storage Commitment
- Event Receipt Timeout
- Media Burn Timeout
- Enable Storage Commitment Provider (syngo Imaging XS VA60A acts as a SC SCP only if this is enabled)

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7 Support of Extended Character Sets

The Siemens DICOM application supports the following character sets.

Single Byte Character sets with out Code Extensions

- ISO-IR 6
- ISO-IR 100
- ISO-IR 101
- ISO-IR 109
- ISO-IR 110
- ISO-IR 144
- ISO-IR 127
- ISO-IR 126
- ISO-IR 138
- ISO-IR 148
- ISO-IR 13(ISO-IR 14 as G0 invoked in GL)
- ISO-IR 166

Single Byte Character sets with ISO 2022 Code Extensions

+ ISO 2022 IR 6
+ ISO 2022 IR 100
+ ISO 2022 IR 101
+ ISO 2022 IR 109
+ ISO 2022 IR 110
+ ISO 2022 IR 144
+ ISO 2022 IR 127
+ ISO 2022 IR 126
+ ISO 2022 IR 138
+ ISO 2022 IR 148
+ ISO 2022 IR 13(ISO-IR 14 as G0 invoked in GL)
+ ISO 2022 IR 166

MultiByte Character sets with ISO 2022 Code Extensions

+ ISO 2022 IR 87
+ ISO 2022 IR 159
+ ISO 2022 IR 149

MultiByte Character sets with out Code Extensions

+ ISO_IR 192
+ GB18030

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Part II - Media Storage

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8 Introduction

8.1 Purpose

This DICOM Conformance Statement is written according to part PS 3.2 of [2].

The applications described in this DICOM Conformance Statement are the SIEMENS syngo Imaging XS VA60A DICOM off-line media applications. The syngo Imaging XS DICOM off-line media storage service implementation acts as FSC, FSU and FSR for the specified application profiles and the related SOP Class instances.

8.2 Definitions, Abbreviations

8.2.1 Definitions

DICOM Digital Imaging and Communications in Medicine

DIMSE DICOM Message Service Element

DIMSE-C DICOM Message Service Element with Composite information objects

8.2.2 Abbreviations

ACR	American College of Radiology
AE	DICOM Application Entity
ASCII	American Standard Code for Information Interchange
DB	Database
DCS	DICOM Conformance Statement
FSC	File Set Creator
FSR	File Set Reader
FSU	File Set Updater
IOD	DICOM Information Object Definition
ISO	International Standard Organization
R	Required Key Attribute
NEMA	National Electrical Manufacturers Association
O	Optional Key Attribute
PDU	DICOM Protocol Data Unit
RWA	Real-World Activity
U	Unique Key Attribute

8.3 References

[4] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-15

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8.4 Connectivity and Interoperability

The implementation of the Siemens DICOM interface has been carefully tested to assure correspondence with this DICOM Conformance Statement. But the Conformance Statement and the DICOM standard does not guarantee interoperability of Siemens modalities and modalities of other vendors. The user must compare the relevant DICOM Conformance Statements and if a successful interconnection should be possible, the user is responsible to specify an appropriate test suite and to validate the interoperability, which is required. A network environment may need additional functions out of the scope of DICOM.

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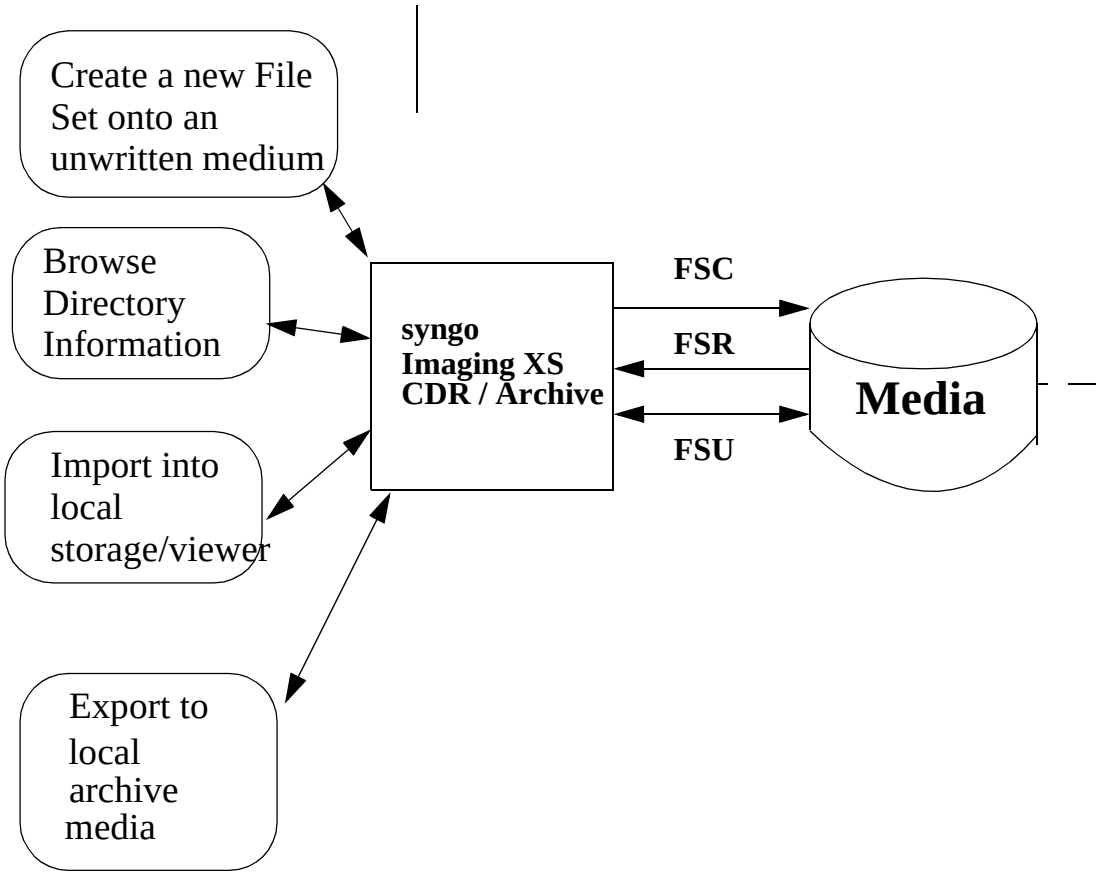
9 Implementation Model

9.1 Application Data Flow Diagram



The syngo Imaging XS CDR/Archive application will serve as an interface to the CD-R or DVD-RAM medium device. It serves interfaces to include the off-line media directory into the browser and to copy SOP instances to a medium or retrieve SOP Instances from medium into local storage.

The syngo Imaging XS CDR/Archive application will support CD-R and DVD-RAM media (see Table 48:).

The FSU role will update new SOP Instances only to media with pre-existing File-sets conforming to the Application Profiles supported.

The contents of the DICOMDIR will be temporarily stored in Archive-Database.

9.2 Functional definitions of Application Entities

The syngo Imaging XS VA60A DICOM off-line media storage application consists of the syngo Imaging XS CDR/Archive application entity serving all interfaces to access off-line media. The syngo Imaging XS CDR/Archive application is capable of

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creating a new File-set onto an unwritten medium.

updating an existing File-set by writing new SOP Instances onto the medium.

copying SOP Instances from the medium onto local storage or loading them into viewer

reading the File-set's DICOMDIR information temporarily into database and pass it to display applications.

9.3 Sequencing of Real World Activities

The syngo Imaging XS CDR/Archive application will not perform updates before the Directory information of the DICOMDIR is completely read.

9.4 File Meta Information Options

The Implementation Class UID is:

"1.3.12.2.1107.5.8.2"

and an Implementation Version Name of

SHS_MV300_VA60A.

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10 Application Entity Specifications

10.1 syngo Imaging XS CDR/Archive Specification

The syngo Imaging XS CDR/Archive provides Standard conformance to Media Storage Service Class (Interchange Option).

Table 48: *Application profiles, Activities, and Roles for* syngo Imaging XS *CDR/Archive*

Application Profiles Supported	Real World Activity	Role	SC Option
STD-GEN-CD STD-GEN-DVD-RAM STD-US-ID-MF-CD STD-US-ID-MF-DVD-RAM AUG-US-ID-MF-CD AUG-US-ID-MF-DVD-RAM PRI-SIXS-CD PRI-SIXS-DVD-RAM PRI-SIXS-DVD	Create new CD or DVD	FSC	Interchange
	Browse Directory Information	FSR	Interchange
	Import into local Storage	FSR	Interchange
	Export to local archive media	FSC,FSU	Interchange

Configuration of uncompressed Transfer Syntax and not selecting Siemens Private CSA Nonimages will result in compatibility to the STD-GEN profiles. Configuration of Ultrasound mode will result in compatibility to STD-US and AUG-US profiles. Availability of JPEGCompression license and configuration of compression for archival or usage of Siemens Private CSA Nonimages will result in PRI-SIXS profiles

10.1.1 File Meta Information for the Application Entity

The Source Application Entity Title is “MagicView 300”.

10.1.2 Real-World Activities for this Application Entity

10.1.2.1 Real-World Activity: Create new File Set onto an unwritten medium

The syngo Imaging XS CDR/Archive application acts as FSC using the interchange option when requested to initialize media.

The syngo Imaging XS CDR/Archive application will take the user provided list of SOP instances (which may be empty), and eliminate any SOP Instance on that list that does not correspond to one of the Application Profiles listed in Chapter 10.1.3 and Chapter 11. These SOP Instances are written onto the media and a corresponding DICOMDIR is created. The determination of the potentially applicable Application Profile is dependent on the type of media. This is determined by the drive and associated software on which the AE has been invoked.

10.1.2.1.1 Application Profiles for the RWA: Create new File Set onto an

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unwritten medium

See Table 48: for the Application Profiles listed that invoke this Application Entity for the Create new File Set onto an unwritten medium Real World Activity.

10.1.2.2 Real-World Activity: Browse Directory Information

The syngo Imaging XS CDR/Archive application acts as FSR using the interchange option when requested to read the media directory.

The syngo Imaging XS CDR/Archive application will read the DICOMDIR and insert that directory entries, which are supported, into a local database. The database can then be used for browsing media contents.

10.1.2.2.1 Application Profiles for the RWA: Browse Directory Information

See Table 48: for the Application Profiles listed that invoke this Application Entity for the Browse Directory Information Real World Activity.

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10.1.2.3 Real-World Activity: Import into local Storage or Viewer

The syngo Imaging XS CDR/Archive application acts as FSR using the interchange option when requested to read SOP Instances from the medium into the local storage or the viewer.

The SOP Instance selected from the media directory will be copied into the local storage or loaded into the viewer. Only SOP Instances, that are supported, can be retrieved from media storage.

10.1.2.3.1 Application Profiles for the RWA: Import into local Storage or Viewer

See Table 48: for the Application Profiles listed that invoke this Application Entity for the Copy to Local Storage Real World Activity.

10.1.2.4 Real-World Activity: Export to local Archive Media

The syngo Imaging XS CDR/Archive application acts as FSU (for media with existing DICOM file-set) or FSC (media not initialized) using the interchange option when requested to copy SOP Instances from the local storage to local Archive medium.

The syngo Imaging XS CDR/Archive application will receive a list of SOP Instances to be copied to the local archive medium. According to the state of the medium inserted (new medium, Medium with DICOM file-set) the SOP Instances are either updated or created on the media. Only valid SOP Instances are accepted.

The syngo Imaging XS CDR/Archive application will finalize the CD-R medium if Multisession is not selected.

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10.1.2.4.1 Application Profiles for the RWA: Export to local Archive Media

See Table 48: for the Application Profiles listed that invoke this Application Entity for the Copy to local Archive Real World Activity.

10.1.3 Application profiles

10.1.3.1 STD-GEN-CD, STD-GEN-DVD-RAM

For media conforming to the STD-GEN-CD or STD-GEN-DVD-RAM Profile the following SOP classes will be supported as an FSR, FSC,FSU.

Transfer Syntax is always Explicit VR Little Endian Uncompressed.

Transfer Syntax UID is 1.2.840.10008.1.2.1

Table 49: *STD-GEN Supported SOP Classes*

IOD	SOP Class UID
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1
CT Image	1.2.840.10008.5.1.4.1.1.2
Enhanced CT Image	1.2.840.10008.5.1.4.1.1.2.1
MR Image	1.2.840.10008.5.1.4.1.1.4
MR Spectroscopy	1.2.840.10008.5.1.4.1.1.4.2
Enhance MR Image	1.2.840.10008.5.1.4.1.1.4.1
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1
Digital X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1
Harcopy Color Image	1.2.840.10008.5.1.1.30
Hardcopy Grayscale Image	1.2.840.10008.5.1.1.29
Digital Intra-oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3
Digital Intra-oral X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1
Digital Mammography Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2
Digital Mammography Image - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1
Nuclear Medicine Image	1.2.840.10008.5.1.4.1.1.20
Nuclear Medicine Image (Retired)	1.2.840.10008.5.1.4.1.1.5
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128
Stored Print	1.2.840.10008.5.1.1.27
RT Structure Set	1.2.840.10008.5.1.4.1.1.481.3
RT Dose	1.2.840.10008.5.1.4.1.1.481.2
RT Plan	1.2.840.10008.5.1.4.1.1.481.5

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Table 49: *STD-GEN Supported SOP Classes*

IOD	SOP Class UID
RT Beams Treatment Record	1.2.840.10008.5.1.4.1.1.481.4
RT Brachy Treatment Record	1.2.840.10008.5.1.4.1.1.481.6
RT Treatment Summary Record	1.2.840.10008.5.1.4.1.1.481.7
RT Image	1.2.840.10008.5.1.4.1.1.481.1
Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7
Mulfi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4
Multi-frame Grayscale Word Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.3
Multi-frame Grayscale Byte Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.2
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1
Ultrasound Image	1.2.840.10008.5.1.4.1.1.6.1
Ultrasound Image (Retired)	1.2.840.10008.5.1.4.1.1.6
Ultrasound Multi-Frame Image	1.2.840.10008.5.1.4.1.1.3.1
Ultrasound Multi-Frame Image (Retired)	1.2.840.10008.5.1.4.1.1.3
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4
VL Slide-Coordinates Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.3
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33
Enhanced SR	1.2.840.10008.5.1.4.1.1.88.22
Chest CAD SR	1.2.840.10008.5.1.4.1.1.88.65
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59
Grayscale Softcopy Presentation State	1.2.840.10008.5.1.4.1.1.11.1
Video Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1.1
Video Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2.1
Video Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4.1
Ophthalmic Photography 8 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.1
Ophthalmic Photography 16 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.2
Stereometric Relationship	1.2.840.10008.5.1.4.1.1.77.1.5.3
Procedure Log	1.2.840.10008.5.1.4.1.1.88.40

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Table 49: *STD-GEN Supported SOP Classes*

IOD	SOP Class UID
Spatial Registration	1.2.840.10008.5.1.4.1.1.66.1
Spatial Fiducials	1.2.840.10008.5.1.4.1.1.66.2
Cardiac Electrophysiology Waveform	1.2.840.10008.5.1.4.1.1.9.3.1
12-lead ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.1
Ambulatory ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.3
Hemodynamic Waveform	1.2.840.10008.5.1.4.1.1.9.2.1
Basic Voice Audio Waveform	1.2.840.10008.5.1.4.1.1.9.4.1
General ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.2
Raw Data	1.2.840.10008.5.1.4.1.1.66

10.1.3.2 STD-US-ID-MF-CDR, STD-US-ID-MF-DVD-RAM(Single- and multiframe)

For media conforming to the STD-US-ID-MF-CDR or STD-US-ID-MF-DVD-RAM Profile the following SOP classes and transfer syntaxes will be supported as an FSR, FSC,FSU

Table 50: *STD-US-ID-MF-xxx Supported SOP Classes*

Information Object Definitions and SOP Class UID	Transfer Syntax and UID	FSC	FSR	FSU
Ultrasound Image 1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	yes
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no
Ultrasound Multiframe Image 1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	yes
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no

All Photometric Interpretations are supported by FSR/FSC/FSU:

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11 Augmented And PrivateApplication Profiles

11.1 Augmented Application Profiles

The Augmentation adds the Retired US Formats to the Standard US Application Profiles

Table 51: *Augmented Application profiles, Activities, and Roles for* syngo Imaging XS *CDR/Archive*

Application Profiles Supported	Real World Activity	Role	SC Option
AUG-US-ID-MF-CDR AUG-US-ID-MF-DVD-RAM	Create CDR or DVD-RAM	FSC	Interchange
	Browse Directory Information	FSR	Interchange
	Import into local Storage or Viewer	FSR	Interchange
	Export to local archive media	FSC,FSU	Interchange

11.1.1 AUG-US-ID-MF-CDR, AUG-US-ID-MF-DVD-RAM

For media conforming to the AUG-US-ID-MF-CDR or AUG-US-ID-MF-DVD-RAM Profile the following SOP classes will be supported as an FSR, FSC,FSU

Table 52: *AUG-US-ID-MF-xxx Supported SOP Classes*

Information Object Definitions and SOP Class UID	Transfer Syntax and UID	FSC	FSR	FSU
US Image Storage retired 1.2.840.10008.5.1.4.1.1.6	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	yes
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no
US Multiframe Image Storage retired 1.2.840.10008.5.1.4.1.1.3	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	yes
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no

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11.2 Private Application Profiles

11.2.1 Private CD, DVD, DVD-RAM Interchange Profiles

11.2.1.1 Class and Profile Identification

This section defines an Application profile class for the syngo Imaging XS VA60A application. The identifier for this class shall be PRI-SIXS.

This class is intended to be used for interchange of extended and private Information Objects via CD-R, DVD and DVD-RAM.

The specific application profiles in this class are shown below.

Table 53: *PRI-SIXS Apllication Profiles*

Application Profile	Identifier	Description
CD-R Interchange of standard & private SOP Classes with Compression	PRI-SIXS-CD	Handles interchange of Composite SOP Instances and privately defined SOP instances(Siemens CSA Non-Image IOD)
DVD Interchange of standard & private SOP Classes with Compression	PRI-SIXS-DVD	Handles interchange of Composite SOP Instances and privately defined SOP instances(Siemens CSA Non-Image IOD)
DVD-RAM Interchange of standard & private SOP Classes with Compression	PRI-SIXS-DVD-RAM	Handles interchange of Composite SOP Instances and privately defined SOP instances(Siemens CSA Non-Image IOD)

Equipment claiming conformance for this SIXS Application Profile Class shall make a clear statement on handling of the private defined SOP Instances.

11.2.1.2 Clinical Context

This application profile facilitates the interchange of original acquired and derived images and private data related to them. Typical media interchange would be from acquisition equipment to dedicated archive systems capable of handling the private data objects.

11.2.1.2.1 Roles and Service Class Options

This Application Profile uses the Media Storage Service Class defined in PS 3.4 with the Interchange Option. The Application Entity shall support one or more of the roles of File Set Creator (FSC), File Set Reader (FSR), and File Set Updater (FSU), defined in PS 3.10.

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11.2.1.2.1.1 File Set Creator

The Application Entity acting as a File-Set Creator generates a File Set under the PRI-SIXS Application Profiles. File Set Creators shall be able to generate the Basic Directory SOP Class in the DICOMDIR file with all the subsidiary Directory Records related to the Image SOP Classes and Private SOP Classes stored in the File Set.

The FSC shall offer the ability to either finalize the disc at the completion of the most recent write session (no additional information can be subsequently added to the disc) or to allow multi-session (additional information may be subsequently added to the disc).

11.2.1.2.1.2 File Set Reader

The role of the File Set Reader shall be used by Application Entities which receive the transferred File Set.

File Set Readers shall be able to read all the defined SOP Instances files defined for the specific Application Profiles to which a conformance claim is made, using all the defined Transfer Syntaxes.

11.2.1.2.1.3 File Set Updater

The role of the File Set Updater shall be used by Application Entities which receive a transferred File Set and update it by the addition of processed information.

File Set Updaters shall be able to read and update the DICOMDIR file. File-Set Updaters do not have to read the image/private information objects. File-Set Updaters shall be able to generate any of the SOP Instances files defined for the specific Application Profiles to which a conformance claim is made, and to read and update the DICOMDIR file.

The FSU shall offer the ability to either finalize a disc at the completion of the most recent write session (no additional information can be subsequently added to the disc) or to allow multi-session (additional information may be subsequently added to the disc).

Note (For CD-R): If the disc has not been finalized, the File Set Updater will be able to update information assuming there is enough space on the disc to write a new DICOMDIR file, the information and the CD-R control structures.

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11.2.1.3 PRI-SIXS Profile Class

11.2.1.3.1 SOP Classes and Transfer Syntaxes

Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian 1.2.840.10008.1.2.1	M	M	M
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
CT Image	1.2.840.10008.5.1.4.1.1.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
CT Image	1.2.840.10008.5.1.4.1.1.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
CT Image	1.2.840.10008.5.1.4.1.1.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
CT Image	1.2.840.10008.5.1.4.1.1.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Enhanced CT Image	1.2.840.10008.5.1.4.1.1.2.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Enhanced CT Image	1.2.840.10008.5.1.4.1.1.2.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Enhanced CT Image	1.2.840.10008.5.1.4.1.1.2.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Enhanced CT Image	1.2.840.10008.5.1.4.1.1.2.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
MR Image	1.2.840.10008.5.1.4.1.1.4	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
MR Image	1.2.840.10008.5.1.4.1.1.4	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
MR Image	1.2.840.10008.5.1.4.1.1.4	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
MR Image	1.2.840.10008.5.1.4.1.1.4	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
MR Spectroscopy	1.2.840.10008.5.1.4.1.1.4.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
MR Spectroscopy	1.2.840.10008.5.1.4.1.1.4.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
MR Spectroscopy	1.2.840.10008.5.1.4.1.1.4.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
MR Spectroscopy	1.2.840.10008.5.1.4.1.1.4.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Enhance MR Image	1.2.840.10008.5.1.4.1.1.4.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Enhance MR Image	1.2.840.10008.5.1.4.1.1.4.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Enhance MR Image	1.2.840.10008.5.1.4.1.1.4.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Enhance MR Image	1.2.840.10008.5.1.4.1.1.4.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Digital X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Digital X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Harcopy Color Image	1.2.840.10008.5.1.1.30	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Harcopy Color Image	1.2.840.10008.5.1.1.30	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Harcopy Color Image	1.2.840.10008.5.1.1.30	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Harcopy Color Image	1.2.840.10008.5.1.1.30	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Hardcopy Grayscale Image	1.2.840.10008.5.1.1.29	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Hardcopy Grayscale Image	1.2.840.10008.5.1.1.29	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Hardcopy Grayscale Image	1.2.840.10008.5.1.1.29	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Hardcopy Grayscale Image	1.2.840.10008.5.1.1.29	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital Intra-oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital Intra-oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Digital Intra-oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Digital Intra-oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital Intra-oral X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital Intra-oral X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Digital Intra-oral X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Digital Intra-oral X-Ray Image - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital Mammography Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital Mammography Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Digital Mammography Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Digital Mammography Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Digital Mammography Image - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Digital Mammography Image - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Digital Mammography Image - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Digital Mammography Image - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Nuclear Medicine Image	1.2.840.10008.5.1.4.1.1.20	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Nuclear Medicine Image	1.2.840.10008.5.1.4.1.1.20	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Nuclear Medicine Image	1.2.840.10008.5.1.4.1.1.20	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Nuclear Medicine Image	1.2.840.10008.5.1.4.1.1.20	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Nuclear Medicine Image (Retired)	1.2.840.10008.5.1.4.1.1.5	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Nuclear Medicine Image (Retired)	1.2.840.10008.5.1.4.1.1.5	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Nuclear Medicine Image (Retired)	1.2.840.10008.5.1.4.1.1.5	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Nuclear Medicine Image (Retired)	1.2.840.10008.5.1.4.1.1.5	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Stored Print	1.2.840.10008.5.1.1.27	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Stored Print	1.2.840.10008.5.1.1.27	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Stored Print	1.2.840.10008.5.1.1.27	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Stored Print	1.2.840.10008.5.1.1.27	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
RT Structure Set	1.2.840.10008.5.1.4.1.1.481.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Dose	1.2.840.10008.5.1.4.1.1.481.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Plan	1.2.840.10008.5.1.4.1.1.481.5	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Beams Treatment Record	1.2.840.10008.5.1.4.1.1.481.4	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Brachy Treatment Record	1.2.840.10008.5.1.4.1.1.481.6	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Treatment Summary Record	1.2.840.10008.5.1.4.1.1.481.7	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Image	1.2.840.10008.5.1.4.1.1.481.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
RT Image	1.2.840.10008.5.1.4.1.1.481.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
RT Image	1.2.840.10008.5.1.4.1.1.481.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
RT Image	1.2.840.10008.5.1.4.1.1.481.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Mulfi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O

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IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Mulfi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Mulfi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Mulfi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Multi-frame Grayscale Word Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Multi-frame Grayscale Word Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.3	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Multi-frame Grayscale Word Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.3	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Multi-frame Grayscale Byte Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Ultrasound Image	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ultrasound Image	1.2.840.10008.5.1.4.1.1.6.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ultrasound Image	1.2.840.10008.5.1.4.1.1.6.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ultrasound Image	1.2.840.10008.5.1.4.1.1.6.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Ultrasound Image (Retired)	1.2.840.10008.5.1.4.1.1.6	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ultrasound Image (Retired)	1.2.840.10008.5.1.4.1.1.6	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ultrasound Image (Retired)	1.2.840.10008.5.1.4.1.1.6	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ultrasound Image (Retired)	1.2.840.10008.5.1.4.1.1.6	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Ultrasound Multi-Frame Image	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ultrasound Multi-Frame Image	1.2.840.10008.5.1.4.1.1.3.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ultrasound Multi-Frame Image	1.2.840.10008.5.1.4.1.1.3.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ultrasound Multi-Frame Image	1.2.840.10008.5.1.4.1.1.3.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Ultrasound Multi-Frame Image (Retired)	1.2.840.10008.5.1.4.1.1.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ultrasound Multi-Frame Image (Retired)	1.2.840.10008.5.1.4.1.1.3	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ultrasound Multi-Frame Image (Retired)	1.2.840.10008.5.1.4.1.1.3	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ultrasound Multi-Frame Image (Retired)	1.2.840.10008.5.1.4.1.1.3	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
VL Slide-Coordinates Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
VL Slide-Coordinates Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.3	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
VL Slide-Coordinates Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.3	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
VL Slide-Coordinates Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.3	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Enhanced SR	1.2.840.10008.5.1.4.1.1.88.22	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Chest CAD SR	1.2.840.10008.5.1.4.1.1.88.65	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Grayscale Softcopy Presentation State	1.2.840.10008.5.1.4.1.1.11.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Video Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Video Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Video Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Video Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Video Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Video Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Video Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Video Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Video Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Video Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Video Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Video Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Ophthalmic Photography 8 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ophthalmic Photography 8 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.1	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ophthalmic Photography 8 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.1	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ophthalmic Photography 8 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.1	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Ophthalmic Photography 16 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
Ophthalmic Photography 16 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.2	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Ophthalmic Photography 16 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.2	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Ophthalmic Photography 16 Bit Image	1.2.840.10008.5.1.4.1.1.77.1.5.2	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Stereometric Relationship	1.2.840.10008.5.1.4.1.1.77.1.5.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Stereometric Relationship	1.2.840.10008.5.1.4.1.1.77.1.5.3	JPEG Baseline (Process 1) Lossy 1.2.840.10008.1.2.4.50	O	M	O
Stereometric Relationship	1.2.840.10008.5.1.4.1.1.77.1.5.3	JPEG Extended (Process 2 und 4) Lossy 1.2.840.10008.1.2.4.51	O	M	O
Stereometric Relationship	1.2.840.10008.5.1.4.1.1.77.1.5.3	JPEG Lossless, Non-Hierarchical (Process 14) 1.2.840.10008.1.2.4.70	O	M	O
Procedure Log	1.2.840.10008.5.1.4.1.1.88.40	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Spatial Registration	1.2.840.10008.5.1.4.1.1.66.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Spatial Fiducials	1.2.840.10008.5.1.4.1.1.66.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Cardiac Electrophysiology Waveform	1.2.840.10008.5.1.4.1.1.9.3.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
12-lead ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Ambulatory ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.3	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Hemodynamic Waveform	1.2.840.10008.5.1.4.1.1.9.2.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Basic Voice Audio Waveform	1.2.840.10008.5.1.4.1.1.9.4.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O

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Table 54: *PRI-SIXS SOP Classes and Transfer Syntaxes*

IOD	SOP Class UID	Transfer Syntax UID	FSC	FSR	FSU
General ECG Waveform	1.2.840.10008.5.1.4.1.1.9.1.2	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Raw Data	1.2.840.10008.5.1.4.1.1.66	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O
Siemens Private CSA NonImage	1.3.12.2.1107.5.9.1	Explicit VR Little Endian 1.2.840.10008.1.2.1	O	M	O

FSC, FSR, FSU - Roles for which the requirements are indicated.
O - Optional
M - Mandatory

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11.2.1.3.2 Physical Media and Media Formats

The PRI-SIXS-CD Profile requires the 120mm CD-R physical media with the ISO/IEC 9660 Media Format, as defined in PS3.12.

The PRI-SIXS-DVD-RAM application profiles require the 120 mm DVDRAM medium, as defined in PS 3.12.

The PRI-SIXS-DVD application profile require any of the 120 mm DVD media other than DVD-RAM, as defined in PS 3.12.

11.2.1.3.3 Directory Information in DICOMDIR

Conforming Application Entities shall include in the DICOMDIR File the Basic Directory IOD containing Directory Records at the Patient and subsidiary levels appropriate to the SOP Classes in the File-set. All DICOM files in the File-set incorporating SOP Instances defined for the specific Application profile shall be referenced by Directory Records.

Note

DICOMDIRs with no directory information are not allowed by this Application Profile

Privately defined IODs will be referenced by "PRIVATE" Directory Records

Appendix A: Registry of DICOM Private Data Elements

Table 55: *Registry of DICOM Private Data Elements*

Name	Tag	Private Creator Code	VR	VM
Zoom Factor	0029,xx01	SHS MagicView 300	FD	1-N
Pan Factor X	0029,xx02	SHS MagicView 300	FD	1
Pan Factor Y	0029,xx03	SHS MagicView 300	FD	1
NmPalette	0029,xx04	SHS MagicView 300	LO	1
Folder Reported Status	0095,xx04	SIENET	UL	1
Folder Rebuild Status	0095,xx0C	SIENET	UL	1
Key Images	0099,xx02	SIENET	UL	1
Private Image Number	0099,xx05	SIENET	SL	1

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Appendix B: Requirements for Viewing of DICOM Images

Scope

This section of the syngo Imaging XS DICOM Conformance Statement documents the required DICOM Tags for the Viewing application.

Requirements for Display and Evaluation

- Tags (0028,1050),(0028,1051) Window Center and Width and Tags (0028,1052),(0028,1053) Rescale Slope and Intersept must have values, which allow the image to be displayed on another station.
- Following Pixel Representations are supported by the Viewer:

Attribute Name	DICOM Tag	16-bit unsigned	16-bit signed	15-bit	14-bit	13-bit	12-bit	10-bit	8-bit	8-bit
Bits allocated	(0028, 0100)	16	16	16	16	16	16	16	16	8
Bits stored	(0028, 0101)	16	16	15	14	13	12	10	8	8
High bit	(0028, 0102)	15	15	14	13	12	11	9	7	7
Pixel Representation	(0028,0103)	0	1	0	0	0	0	0	0	0

Note: If storing changed images, all 16-bit images are stored as 12 bit.

- Following Photometric Interpretations are supported by the Viewer:

Photometric Interpretation (0028,0004)	Planar Configuration (0028,0006)	Support Read	Support Store
RGB	0	Y	Y
RGB	1	Y	N
MONOCHROME1	n.a.	Y	Y
MONOCHROME2	n.a.	Y	Y
PALETTE COLOR	n.a.	Y	N
YBR_FULL*	1	Y	N
YBR_FULL_422*	0	Y	N
YBR_PARTIAL_422*	0	Y	N

All color images other then Default (1. Line) are converted to Default at storage time.

*YBR images will be converted into RBG images and stored as RGB images.

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Maximum Image Size: 10000 Rows and 10000 Columns. Bigger images cannot be loaded to Viewer.

Maximum No. of Frames for Multiframe: 1000.

These are the requirements for Display and Evaluations of the Viewing station. The Storage of images do not follow the current restrictions.

Requirements for Storage of Shutters

On Storing if there was a Shutter (Circular or Rectangle) painted by the User, the Shutter Module is stored into the DICOM Object also if it is not official Part of the IOD. The according Tags are 0018,1600 up to 0018,1612.

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Appendix C: Restrictions for Viewing of DICOM Images

Only the images of the following set of SOP Classes can be displayed at the Viewer. Images of the other SOP Classes from "STORE SCU Proposed Presentation Contexts of syngo Imaging XS VA60A" and "STORE SCP Acceptable Presentation Contexts of syngo Imaging XS" are supported for archiving but can not be displayed at the Viewer.

Table 56: *SOP Classes which are supported for display*

SOP Class	UID
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Storage	1.2.840.10008.5.1.4.1.1.2
MR Image Storage	1.2.840.10008.5.1.4.1.1.4
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1
Ultrasound Multi-Frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1
Harcopy Color Image Storage	1.2.840.10008.5.1.1.30
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1
Digital Mammography Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.2
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5

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